

WHAT IS CLAIMED IS:

1. A plasma display panel which has a panel capacitor, the plasma display panel comprising:

first and second switches coupled in series between a first power source for supplying a first voltage and a first terminal of the panel capacitor;

third and fourth switches coupled in series between the first terminal of the panel capacitor and a second power source for supplying a second voltage;

a first capacitor coupled between a contact of the first and second switches and a contact of the third and fourth switches; and

a fifth switch coupled between the first capacitor and a third power source supplying a third voltage.

2. The plasma display panel of claim 1, wherein the fifth switch is turned on so that the first capacitor is charged to the difference between the first and third voltages.

3. The plasma display panel of claim 1, wherein the third voltage is substantially a middle voltage between the first and second voltages.

4. The plasma display panel of claim 1, further comprising:
at least one inductor coupled to the first terminal of the panel capacitor; and
sixth and seventh switches coupled in parallel between the inductor and the third power source.

5. The plasma display panel of claim 4, wherein the first to fourth switches have a body diode.

6. The plasma display panel of claim 1, further comprising:

sixth and seventh switches coupled in series between the first power source and a second terminal of the panel capacitor;

5 eighth and ninth switches coupled in series between the second terminal of the panel capacitor and the second power source;

a second capacitor coupled between a contact of the sixth and seventh switches and a contact of the eighth and ninth switches; and

a tenth switch coupled between the second capacitor and the third power source.

10 7. A plasma display panel which has a panel capacitor, the plasma display panel comprising:

first and second switches coupled in series between a first power source supplying a first voltage and a first terminal of the panel capacitor;

15 third and fourth switches coupled in series between the first terminal of the panel capacitor and a second power source supplying a second voltage;

a first signal line coupled to a contact of the first and second switch; and

a second signal line coupled to a contact of the third and fourth switch,

20 wherein a voltage between the first and second signal lines is a third voltage, and the first and second voltages are alternately applied to the first terminal of the panel capacitor.

8. The plasma display panel of claim 7, wherein the third voltage is substantially a middle voltage between the first and second voltages.

25 9. The plasma display panel of claim 7, further comprising a capacitor coupled

between the first and second signal lines and charged to the third voltage.

10. The plasma display panel of claim 9, further comprising a fifth switch coupled between a third power source supplying a voltage substantially corresponding to a summation of the second and third voltages, the fifth switch being turned on thereby charging the capacitor to the third voltage in the on state of the fourth switch.

11. The plasma display panel of claim 7, further comprising a power recovery section including at least one inductor coupled to the first terminal of the panel capacitor, the power recovery section changing a terminal voltage of the panel capacitor using a resonance generated between the inductor and the panel capacitor.

12. The plasma display panel of claim 11, wherein the power recovery section further includes sixth and seventh switches coupled in parallel between the inductor and a third power source supplying a middle voltage substantially corresponding to a difference of the first and second voltages.

13. The plasma display panel of claim 7, wherein the first to fourth switches have a body diode.

14. The plasma display panel of claim 7, further comprising:

fifth and sixth switches coupled in series between the first power source and a second terminal of the panel capacitor;

seventh and eighth switches coupled in series between the second terminal of the panel capacitor and the second power source;

a third signal line coupled to a contact of the fifth and sixth switches; and

a fourth signal line coupled to a contact of the seventh and eighth switches,
wherein a voltage between the third and fourth signal lines is the third voltage,
and the second voltage is applied to the second terminal of the panel capacitor while
the first voltage is applied to the first terminal of the panel capacitor, and the first
5 voltage is applied to the second terminal of the panel capacitor while the second
voltage is applied to the first terminal of the panel capacitor.

15. A method for driving a plasma display panel, in which the plasma display
panel is driven by alternately applying first and second voltages through first and
10 second signal lines coupled to a first terminal of a panel capacitor, the method
comprising:

(a) applying a third voltage between a contact of first and second switches
formed on the first signal lines and a contact of third and fourth switches formed on the
second signal lines, while the first voltage is applied to the first terminal of the panel
15 capacitor by turning on the first and second switches; and

(b) applying the third voltage between the contact of the first and second
switches and the contact of the third and fourth switches, while the second voltage is
applied to the first terminal of the panel capacitor by turning on the third and fourth
switches.

20 16. The method of claim 15, wherein the step (b) includes charging the third
voltage to a capacitor coupled between the contact of the first and second switches
and the contact of the third and fourth switches.

25 17. The method of claim 15, wherein the step (a) further includes raising the
voltage of the first terminal of the panel capacitor to the first voltage using a first

resonance generated between an inductor coupled to the first terminal of the panel capacitor and the panel capacitor, before the first voltage is applied to the first terminal of the panel capacitor, and

the step (b) further including dropping the voltage of the first terminal of the panel capacitor to the second voltage using a second resonance generated between the inductor and the panel capacitor, before the second voltage is applied to the panel capacitor.

18. The method of claim 17, wherein the step (a) further includes injecting current in the inductor through a path of a power source supplying the third voltage, the inductor, and the second signal line, before the first resonance is generated, and

the step (b) further includes injecting current in the inductor through a path of the first signal line, the inductor, and the power source, before the second resonance is generated.